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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/807,140 | 03/24/2004 | Ky-Hyun Jung | 2557-000218/US | 2757 |
| 30593 | 7590 | 04/14/2005 | EXAMINER | |
| HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195 | | | NGUYEN, TUNG X | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2829 | |

DATE MAILED: 04/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/807,140

Applicant(s)

JUNG, KY-HYUN

Examiner

Tung X. Nguyen

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 15-20 is/are allowed.
- 6) ☒ Claim(s) 11-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/24/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnston et al. (u.s.p 5,032,787).

As to claim 11, Johnston et al. disclose in Figs. 1, the method and apparatus for testing electrical characteristics of a semiconductor device comprising: providing a tester capable of performing an electrical test on the semiconductor device (col. 4, lines 48-52); providing a connection unit (fig. 1) including at least one contact pin (32, 58 of figure 1) for electrically connecting the semiconductor device and the tester (col. 4, lines 48-52); electrically connecting the tester and the semiconductor device via a simultaneous rotating and up and down movement of the at least one contact pin (fig. 1, and col. 1, lines 65-68, and col. 2, lines 20-30); performing an electrical test on the semiconductor device (col. 4, lines 48-52).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston et al. (u.s.p 5,032,787), in view of Aldaz et al. (u.s.p 6,586,956).
5. As to claim 12, Johnston et al. disclose all of limitations except for connecting the contact tip to the semiconductor device through a probe card and connecting the plunger to the tester. However, Aldaz et al. disclose in Figs. 3-4, the probe card (20 of figure 3) and plunger (233 of figure 9c) to the tester for connecting the contact tip to the semiconductor device to the tester and analyzing the characteristic of the semiconductor device. Therefore, It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system of Johnston et al., and provide the probe card, as taught by Aldaz et al. for connecting the contact tip to the semiconductor device to the tester and analyzing the characteristic of the semiconductor device.
6. As to claim 13, Aldaz et al. disclose in Figs. 2-4, connecting the contact tip (141 of figure 2) to the semiconductor device through a socket board (120 of figure 2) and connecting the plunger to the tester (100 of figure 2).
7. As to claim 14, Aldaz et al. disclose in Figs. 2-4, connecting the contact tip (141 of figure 2) to the semiconductor device through a connector (120 of figure 2) and connecting the plunger to the tester (100 of figure 2).

Allowable Subject Matter

8. Claims 1-10, 15-20 are allowed.
9. The following is an examiner's statement of reasons for allowance:

As to claims 1-10, and 15-20, the prior art does not disclose the contact pin used in an apparatus for testing characteristics of a semiconductor device, particularly defined by the characteristic of a barrel having a screw thread on an inside wall; and at least one screw moving together with the screw thread; in combination with the other claimed features.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung X. Nguyen whose telephone number is (571) 272-1967. The examiner can normally be reached on 8:30am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (571) 272-2034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TN
4/11/05


VINH NGUYEN
PRIMARY EXAMINER
A-U-2829
04/13/05